IN THE CLAIMS

1. (withdrawn) A system for removing mercury in exhaust gas, in which mercury is removed from exhaust gas of a boiler, characterized in that

an NH_3 decomposition catalyst for decomposing NH_3 flowing down from the outlet of said denitrification apparatus and a mercury oxidation catalyst for oxidizing mercury into mercury chloride on the downstream side of said NH_3 decomposition catalyst are provided between a denitrification apparatus and a wet type desulfurization apparatus, and mercury having been oxidized into mercury chloride is removed by said wet type desulfurization apparatus.

2. (withdrawn) The system for removing mercury in exhaust gas according to claim 1, characterized in that

in the mercury removing system in which heating means and a heat exchanger are provided between said denitrification apparatus and wet type desulfurization apparatus,

said mercury oxidation catalyst is installed at least at one location of between the downstream side of said NH_3 decomposition catalyst and the upstream of said heating means, between the downstream side of said heating means and the upstream of said heat exchanger, and between the downstream side of said heat exchanger and the upstream side of said wet type desulfurization apparatus.

3. (withdrawn) The system for removing mercury in exhaust gas according to claim 1 or 2, characterized in that said mercury oxidation catalyst is a catalyst in which at least one kind selected from a group consisting of TiO_2, SiO_2, ZrO_2, Al_2O_3 and zeolite is used as a carrier, and at least one kind selected from a group consisting of Pt, Ru, Rh, Pd, Ir, V, W, Mo, Ni, Co, Fe, Cr, Cu and Mn is carried on said carrier as an active component.

4. (withdrawn) The system for removing mercury in

exhaust gas according to claim 1 or 2, characterized in that said NH_3 decomposition catalyst is a catalyst in which at least one kind selected from a group consisting of TiO_2, SiO_2, ZrO_2, Al_2O_3 and zeolite is used as a carrier, and at least one kind selected from a group consisting of Pt, Ru, Rh, Pd, Ir, V, W, Mo, Ni, Co, Fe, Cr, Cu and Mn is carried on said carrier as an active component.

5. (currently amended) A method for removing mercury in exhaust gas, in which mercury is removed from exhaust gas of a boiler, characterized in that

said mercury removing method comprises an NH_3 decomposition process for decomposing excess NH_3 flowing down from a denitrification process and a mercury oxidation process for oxidizing mercury into mercury chloride on the downstream side of said NH_3 decomposition process, which are provided between said denitrification process and a wet desulfurization process, and mercury having been oxidized into mercury chloride is removed in said wet desulfurization process, said NH_3 decomposition process is separate from said denitrification process.

6. (original) The method for removing mercury in exhaust gas according to claim 5, characterized in that

in the mercury removing method comprising a heating process and a heat recovery process, which are provided between said denitrification process and wet desulfurization process,

said NH_3 decomposition process is carried out in a temperature zone of 300 to 450°C on the downstream side of said denitrification process, and

said mercury oxidation process is carried out at least in one location of a temperature zone of 300 to 450°C on the downstream side of said NH_3 decomposition process, a temperature zone of 120 to 200°C on the downstream side of said heating

process, or a temperature zone of 60 to 120°C on the downstream side of said heat recovery process.

7. (original) The method for removing mercury in exhaust gas according to claim 5, characterized in that when said mercury oxidation process is carried out on the downstream side of said heating process, the temperature is controlled to a predetermined temperature in the range of 60 to 200°C.

8. (original) The method for removing mercury in exhaust gas according to claim 5 or 6, characterized in that the temperature in said mercury oxidation process is controlled by measuring the concentration of metallic mercury or mercury chloride in an oxidation catalyst outlet gas in said mercury oxidation process.

9. (original) The method for removing mercury in exhaust gas according to claim 5 or 6, characterized in that in said NH_3 decomposition process, NH_3 is treated so that the concentration of NH_3 at the outlet is 1 ppm or lower, and then mercury is oxidized in said mercury oxidation process.

10. (new) The method for removing mercury in exhaust gas according to claims 5 or 6, further comprising a NH_3 decomposition catalyst, said NH_3 decomposition catalyst comprises a carrier and an active component, said carrier is selected from the group consisting of TiO_2, SiO_2, ZrO_2, Al_2O_3, and zeolite, and said active component is selected from the group consisting of Pt, Ru, Rh, Pd, Ir, V, W, Mo, Ni, Co, Fe, Cr, Cu, and Mn.

11. (new) The method for removing mercury in exhaust gas according to claims 5 or 6, further comprising a mercury oxidation catalyst, said mercury oxidation catalyst comprising a carrier and an active component, said carrier is selected from the group consisting of TiO_2, SiO_2, ZrO_2, Al_2O_3, and zeolite, and said active component is selected from the group consisting of Pt, Ru, Rh, Pd, Ir, V, W, Mo, Ni, Co, Fe, Cr, Cu, and Mn.

12. (new) A method for removing mercury in exhaust gas, in which mercury is removed from exhaust gas of a boiler, characterized in that

said mercury removing method comprises a NH_3 decomposition process for decomposing excess NH_3 flowing down from a denitrification process and a mercury oxidation process for oxidizing mercury into mercury chloride on the downstream side of said NH_3 decomposition process, which are provided between said denitrification process and a wet desulfurization process, and mercury having been oxidized into mercury chloride is removed in said wet desulfurization process, said NH_3 decomposition process is separate from said denitrification process, and

wherein said NH_3 decomposition occurs over a catalyst comprising a carrier and an active component, said carrier is selected from the group consisting of TiO_2, SiO_2, ZrO_2, Al_2O_3, and zeolite, and said active component is selected from the group consisting of Pt, Ru, Rh, Pd, Ir, V, W, Mo, Ni, Co, Fe, Cr, Cu, and Mn.

13. (new) The method for removing mercury in exhaust gas according to claim 12, further comprising a mercury oxidation catalyst, said mercury oxidation catalyst comprising a carrier and an active component, said carrier is selected from the group consisting of TiO2, SiO2, ZrO2, Al2O3, and zeolite, and said active component is selected from the group consisting of Pt, Ru, Rh, Pd, Ir, V, W, Mo, Ni, Co, Fe, Cr, Cu, and Mn.

14. (new) A method for removing mercury in exhaust gas, in which mercury is removed from exhaust gas of a boiler, characterized in that

said mercury removing method comprises an NH_3 decomposition process for decomposing excess NH_3 flowing down from a denitrification process and a mercury oxidation process for oxidizing mercury into mercury chloride on the downstream side

of said NH_3 decomposition process, which are provided between said denitrification process and a wet desulfurization process, and mercury having been oxidized into mercury chloride is removed in said wet desulfurization process, said NH_3 decomposition process is separate from said denitrification process,

wherein said mercury oxidation occurs over a catalyst comprising a carrier and an active component, said carrier is selected from the group consisting of TiO_2, SiO_2, ZrO_2, Al_2O_3, and zeolite, and said active component is selected from the group consisting of Pt, Ru, Rh, Pd, Ir, V, W, Mo, Ni, Co, Fe, Cr, Cu, and Mn.

15. (new) The method for removing mercury in exhaust gas according to claim 14, further comprising a NH_3 decomposition catalyst, said NH_3 decomposition catalyst comprises a carrier and an active component, said carrier is selected from the group consisting of TiO_2, SiO_2, ZrO_2, Al_2O_3, and zeolite, and said active component is selected from the group consisting of Pt, Ru, Rh, Pd, Ir, V, W, Mo, Ni, Co, Fe, Cr, Cu, and Mn.